AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-39. (Cancelled)

40. (Currently Amended) A method of producing an oriented oxide superconducting film, comprising:

~~(a)~~ providing a metal oxyfluoride film on a biaxially textured substrate, said metal oxyfluoride film comprising the constituent metallic elements of an oxide superconductor in substantially stoichiometric proportions;

~~(b)~~ converting the metal oxyfluoride into the oxide superconductor film in a processing gas having a total pressure less than atmospheric pressure under conditions that enable the removal of HF from the film surface, wherein the oriented oxide superconducting film exhibits c-axis texturing ~~and~~

~~further comprising depositing a buffer layer on the substrate before step (a)~~.

41. (Original) The method of claim 40, wherein the total pressure is less than about 8 Torr.

42. (Original) The method of claim 41, wherein the total pressure is less than about 1 Torr.

43. (Original) The method of claim 42, wherein the total pressure is less than about 0.1 Torr.

44. (Original) The method of claim 43, wherein the total pressure is less than about 0.01 Torr.

45. (Original) The method of claim 44, wherein the total pressure is less than about 0.01 Torr.

46. (Original) The method of claim 45, wherein the total pressure is less than about 0.001 Torr.

47. (Original) The method of claim 40, wherein the processing gas consists substantially of water vapor and oxygen.

48. (Canceled)

49. (Currently amended) The method of claim [[40]] 85, wherein the buffer layer comprises a member of yttria-stabilized zirconia, $LaAlO_3$, $SrTiO_3$, CeO_2, Y_2O_3, and MgO and any combination of the above.

50. (Original) The method of claim 40, wherein the film has a thickness of at least 0.3μm.

51. (Previously presented) The method of claim 50, wherein the film has a thickness of at least 0.5 μm.

52. (Original) The method of claim 51, wherein the film has a thickness of at least 0.8 μm.

53. (Original) The method of claim 52, wherein the film has a thickness of at least 1 μm.

54. (Original) The method of claim 40, wherein the superconductor comprises YBCO.

55. (Original) The method of claim 40, wherein the substrate comprises a ceramic.

56. (Original) The method of claim 55, wherein the ceramic is selected from the group consisting of YSZ, $LaAlO_3$, $SrTiO_3$, CeO_2, and MgO.

57. (Currently amended) The method of claim 40, wherein the substrate comprises a metal ~~having a texture selected from untextured, uniaxial texturing, and biaxial texturing~~.

58. (Original) The method of claim 57, wherein the metal is selected from steel, nickel, iron, molybdenum, copper, silver, and alloys and mixtures thereof.

59. (Original) The method of claim 40, wherein the film has a Jc greater than 0.45 MA/cm2.

60. (Original) The method of claim 59, wherein the film has a Jc greater than 1 MA/cm2.

61. (Original) The method of claim 60, wherein the film has a Jc greater than 2 MA/cm2.

62. (Original) The method of claim 61, wherein the film has a Jc greater than 4 MA/cm2.

63-84. (Cancelled)

85. (New) The method of claim 40, further comprising depositing a buffer layer on the substrate before providing the metal oxyfluoride film on the substrate.

86. (New) The method of claim 40, wherein the superconductor film has a critical current density of greater than 0.45 MA/cm^2.

87. (New) The method of claim 40, wherein the superconductor film has a critical current density of greater than 1 MA/cm^2.

88. (New) The method of claim 40, wherein the superconductor film has a critical current density of greater than 2 MA/cm^2.

89. (New) The method of claim 40, wherein the superconductor film has a critical current density of greater than 4 MA/cm^2.